Faunitaxys

Revue de Faunistique, Taxonomie et Systématique morphologique et moléculaire

Volume 14
Numéro 36

Mai 2026

ISSN (Print) : 2269 - 6016
ISSN (Online) : 2970 - 4960
Dépôt légal : Mai 2026

Faunitaxys

Revue de Faunistique, Taxonomie et Systématique morphologique et moléculaire

ZooBank : https://zoobank.org/79A36B2E-F645-4F9A-AE2B-ED32CE6771CC

Directeur de la publication, rédacteur, conception graphique et PAO:
Lionel Delaunay

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La parution de *Faunitaxys* est apériodique

Faunitaxys est indexé dans / ***Faunitaxys*** is indexed in:
- Zoological Record
Articles and nomenclatural novelties are referenced by:
- ZooBank (https://zoobank.org)
Online Archives:
- HAL (https://hal.archives-ouvertes.fr)
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Imprimée sur les presses de SPEED COPIE, 6, rue Tréfilerie, F- 42100 Saint-Etienne

Imprimé le 12 05 2026

https://doi.org/10.57800/faunitaxys-14(36)

Description of a new genus and four species of Neotropical Lasiocampidae with new combinations (Lepidoptera: Lasiocampidae, Poecilocampinae, Macromphaliini)

OLIVIER FELIS

2 rue Pharam, 97310 Kourou, Guyane Française.
- E-mail: o.felis@hotmail.fr - ZooBank: https://zoobank.org/5EF12D79-568B-4FA9-A438-8415A8B5D04C - Orcid: https://orcid.org/0009-0002-1383-0233

Keywords:

Lepidoptera;
Lasiocampidae;
Euglyphis;
Trishulata;
taxonomy;
description;
new species;
Bolivia;
Colombia;
French Guiana.

Abstract. – The study of the habitus and genitalia, including the support of DNA barcoding, of a group of species classified within the genus *Euglyphis* Hübner, [1820], leads to the creation of a new genus: *Trishulata* **gen**. **n**., with *Trishulata milenae* **sp**. **n**. as the type species. Three additional species - *T. cochabambensis* **sp**. **n**., *T. kozlovi* **sp**. **n**. and *T. tiagoi* **sp**. **n**. - are described. The following species, previously classified within the genus *Euglyphis*, are transferred to the new genus: *Trishulata lankesteri* Schaus, 1910 **comb**. **n**., *Trishulata marna* Schaus, 1896 **comb**. **n**., *Trishulata namora* Schaus, 1905 **comb**. **n**. and *Trishulata vittabunda* Dyar, 1914 **comb**. **n**.

Félis O., 2026. – Description of a new genus and four species of Neotropical Lasiocampidae with new combinations (Lepidoptera: Lasiocampidae, Poecilocampinae, Macromphaliini). *Faunitaxys*, 14(36): 1 – 13.

DOI : https://doi.org/10.57800/faunitaxys-14(36)

ZooBank : https://zoobank.org/1D6FB9D9-5430-4E9E-AED4-E373EE5E632D

Received: 07/03/2026 – *Revised*: 16/04/2026 – *Accepted*: 17/04/2026

Introduction

Within the Lasiocampidae family, the Poecilocampinae subfamily currently includes 584 Neotropical species distributed across 15 genera (Becker & Heppner, 1996), a figure recently updated by several publications (Durand, 2020, 2021, 2023, 2024) bringing the total to 600 species. Among these, the genus *Euglyphis* Hübner, [1820] stands out, comprising nearly 370 described species accounting for over 60% of the subfamily's Neotropical diversity. Ranging from Mexico to South America (Montero-Ramirez & Janzen, 2011), *Euglyphis* effectively functions as a "catch-all" genus.
Since the name-bearing type of the genus *Euglyphis*: *Euglyphis claudia* (Stoll, 1782) is lost, the comparative diagnosis of the new genus described in this paper relies on specimens of *E. claudia* (Stoll, 1782) collected in French Guiana. This choice is supported by the close morphological match between our material and Stoll's original plate (1782). Given the faunal homogeneity across the Guiana Shield (Decaëns, et al., 2016), these French Guianan specimens are reliable representatives of the species originally described from Suriname.
From a morphological perspective, the male genitalia of *Euglyphis* were defined by Franclemont (1973) as a well-developed gnathos and the absence or extreme reduction of socii. Our dissection of *E. claudia* specimens in Fig. 15 confirms this structural pattern, providing a solid anatomical basis for comparison.
The present study focuses on a group of species that share a very consistent habitus and distinct genitalic features, clearly setting them apart from *Euglyphis*. Consequently, the new genus *Trishulata* **gen**. **n**., is established here to accommodate this group. This work includes the description of four new species (including two from French Guiana) and proposes four new combinations for species previously placed in *Euglyphis*.

Materials and Methods

The species from French Guiana were collected by the author using the light-trap technique with mercury-vapor lamps (250W + 2 x 80W). Collected specimens were placed in a flask containing vermiculite impregnated with ethyl acetate before being injected with a few drops of ammonia in the thorax. The specimens were pinned and placed on balsa setting boards for three weeks.
Photos of specimens were taken with a Nikon D850 camera using the R1C1 controller kit and a 60 mm macro lens.
Adult genitalia were prepared by heating the abdomens for a few minutes with 10 ml of a 10% KOH solution. The genital capsule was placed in a chlorazol black solution for a few seconds. After being washed with water, the genitalia were photographed in a natural position suspended in 95% alcohol. Genitalia are preserved in vials with glycerol.
To examine the wing venation, the wings were carefully detached from the thorax using fine forceps. To remove the scales and pigments, the wings were immersed in a 10% bleach (sodium hypochlorite) solution for approximately 30 to 60 seconds until they became transparent. Once cleared, the wings were transferred to distilled water to neutralize the chemical reaction, then dehydrated in a series of ethanol baths (70% and 95%) for two minutes each to prevent tissue distortion.

Reviewers:
Michel Laguerre (*Université de Bordeaux, France*)
- https://orcid.org/0000-0002-6524-7069 - https://zoobank.org/2146C3FF-355D-4649-AB4B-20BE73BDC602
Alexey M. Prozorov (*Ludwig Maximilian University, Planegg-Martinsried, Germany*)
- https://orcid.org/0000-0002-5668-0741 - https://zoobank.org/Authors/40D79BEB-D57D-4252-8819-EFE61A1823D4

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Photos were taken with 18 MP USB 3.0 digital camera with advanced editing & measuring software for Windows XP, attached to Amscope 3.5X-90X Simul-Focal Trinocular Boom LED Stereo Microscope. For genitalia pictures, resolution was enhanced using the focus stacking technique (twenty planes were generally used) with the Photoshop software.
The nomenclature of the wing venation and genitalia terminology follows Kristensen (2003).
Seven species were submitted to DNA barcoding using short sequences corresponding to the barcode region of the mitochondrial COI gene via BOLD (Barcode of Life Data System, www.boldsystems.org). The sequences were extracted from BOLD systems as a fasta file and imported into MEGA 12 (Kumar, et al., 2024) for alignment using MUSCLE (Tamura, Nei, & Kumar, 2004). The tree in Fig. 11 was constructed using the Neighbor-joining statistical method (Saitou & Nei, 1987), with a bootstrap test set with 1000 replications. The percentage of replicated trees is indicated next to the branches (Felsenstein, 1985). The pairwise genetic distances were calculated using the Kimura 2-parameter (K2P) model and are summarized in Table 1.

Repository abbreviations

COF: Personal collection of Olivier Felis, Kourou, French Guiana.
INBio: Instituto Nationals de Biodiversidad, Costa Rica.
MNHN: Muséum National d'Histoire Naturelle, Paris, France.
ONF: Office National des Forêts.
USNM: United States National Museum, Smithsonian Institution, Washington D.C., U.S.A.

Results and discussion

Trishulata **gen**. **n**.

ZooBank: https://zoobank.org/90E5A92C-42A2-434B-9592-1084248610EF

Type species: *Trishulata milenae* **sp**. **n**. (Fig. 2)

Etymology. – The generic name *Trishulata* is derived from the Sanskrit word trishula, meaning "trident", in reference to the shape of the dorsal processes of the male genitalia, which resembles the three-pronged tip of a trident. The name is to be treated as feminine in gender.

Diagnosis. – The genus *Trishulata* is distinguished from the genus *Euglyphis* Hübner, [1820] (type species: *E. claudia* (Stoll, 1782)) by characteristics of the habitus and male genitalia.
Habitus: *Trishulata* exhibits a coloration ranging from beige and light grey to dark brown on the head, abdomen, and lower part of the forewing, with the costal area varying from brown to ochre. In contrast, *E. claudia* (Fig. 14) is characterized by a fawn coloration on the head, abdomen, and lower part of the forewings, whereas the costal area of the forewing is grey.
Male genitalia: *Trishulata* is primarily distinguished by the absence of a gnathos and the presence of basal socii on the uncus, giving the assembly a trident-like appearance. Conversely, in *E. claudia* (Fig 15a, 15b), the uncus (also with a truncated apex) is associated with a well-developed, sclerotized gnathos of equal length, which is notably incurved at the tip; socii are absent. Furthermore, the valva in *Trishulata* is deeply divided into a long tubular costal part and a shorter saccular part. In *E. claudia*, the costal and saccular parts are of subequal size and remain connected by a visible membrane. In *Trishulata*, the aedeagus is tubular and strongly sclerotized; shaft with or without a sclerotized apical spine depending on the species. Vesica provided with scobination (minute teeth) and distinct cornuti. Conversely, in *E. claudia* (Fig. 15c), aedeagus weakly sclerotized, narrowed basally, with a trilobed vesica lacking cornuti.
Analysis of the mitochondrial COI gene (DNA barcoding) confirms this separation. A genetic distance of at least 17% is observed between the genus *Trishulata* and the type species *Euglyphis claudia*.

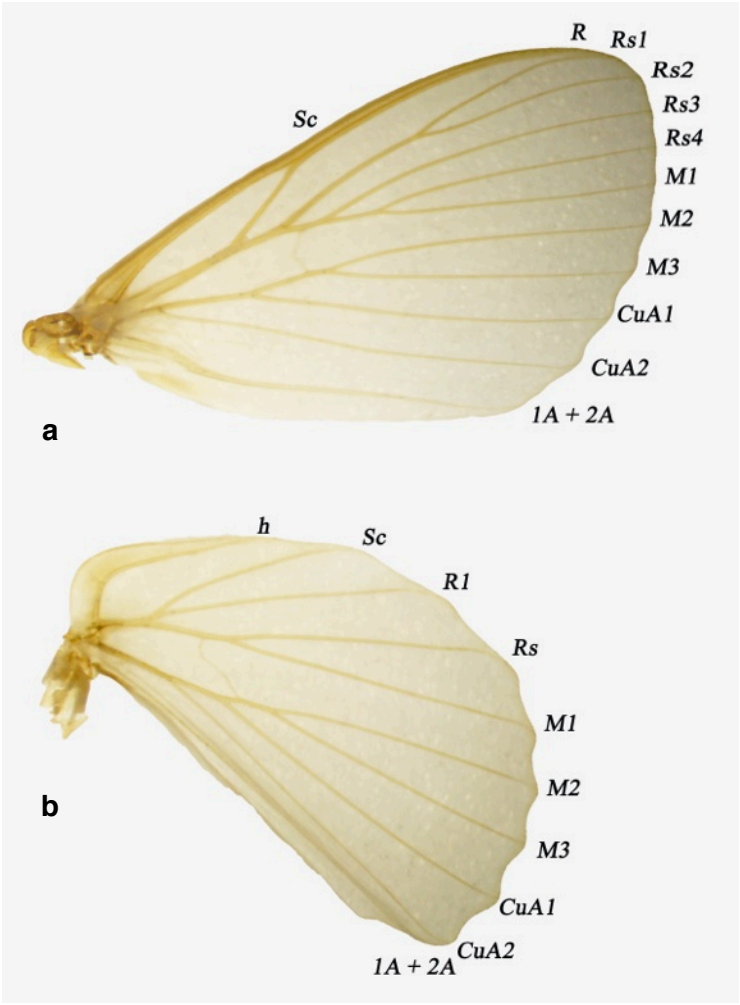

Fig. **1**. *Trishulata* venation based on a male of *Trishulata namora* from French Guiana. **a**. Forewing. **b**. Hindwing.

Description. – Habitus with a grey to dark brown anal area of the forewing contrasting with a brown to ochre medioposterior area. The wingspan varies from 27 mm to 41 mm according to species. The forewing is subtriangular, with a rounded antero-distal angle and a convex termen. Antennae bipectinate to tip in males. Thorax and abdomen grey beige to dark brown. Anterior coxa and anterior femur with long scales of the same color as the thorax and abdomen. Fore-tibial with epiphysis. Mid-tibia and hind-tibia both with one pair of tibial spurs.
The wing-coupling apparatus is of the amplexiform type, characterized by the complete absence of a frenulum and retinaculum. No frenular bristles or specialied scales were observed during the clearing process.
The wing venation, illustrated in Figure 1, has the following characteristics:
Discal cell of the forewing measuring approximately one-third of the length of the forewing. The discal cell veinlet is a broken line in its center. Rs1 and Rs2 of forewing stalked half the distance from discal cell to outer margin. Rs3 of forewing free, stalked with Rs4+M1. M2 and M3 short stalked at the lower angle of the discal cell. CuA1 and CuA2 not stalked and originate on the lower edge of the cell. 1A and 2A combined.
For hindwing, the discal cell veinlet is a sigmoig curve. Sc and R1 short stalked above cell. Rs, M1 stalked prior to upper angle of the cell and M2, M3 stalked prior to lower angle. CuA1 and CuA2 not stalked. 1A and 2A combined.
Male genitalia are characterized by a short uncus with truncated apex accompanied by two longer socii suggesting the appearance of a trident. Gnathos absent. Valva divided into costal and saccular parts. Falciform costal part curved inwards with a bulbous base and digitiform saccular part with bristles on the apex. Aedeagus as a tubular shaft, with small sclerotized teeth at apex, with a bag-like vesica equipped with multiple cornuti and minute teeth.

***Trishulata milenae* sp. n.**

(Fig. 2 & 3)

ZooBank: https://zoobank.org/5DEBE8EA-BA57-4FDF-B56C-149A0D7E4887

Holotype, ♂, bearing the following labels: Holotype ♂, *Trishulata milenae* Felis des. 2026 – **Guyane Française**, RN2 km 135.7 Piste Mataroni pk 11.4, 04°04'28.47"N – 52°08'08.36"W, Alt 90 m, 03.VII.2024, *leg*. O. Felis – COF 0069 – genitalia, prep. O. Felis ref OF036 – Bc-Fel0040 – *In* MNHN.

Paratypes (**2** ♂)

1 ♂, Guyane Française, RN2 km 81.5 Piste Belizon, 04°19'36.35"N – 52°20'27.17"W, Alt 63 m, 26.X.2024, *leg*. O. Felis / H. Thomas / J.P. Tamisier – COF 0214 – genitalia prep. O. Felis ref OF071 – *In* COF.

1 ♂, Guyane Française, RN2 km 135.7 Piste Mataroni pk 11.4, 04°04'28.17"N – 52°08'08.27"W, Alt 98 m, 21.II.2026, *leg*. O. Felis – COF 0216 - *In* COF.

Diagnosis. – Habitus similar to *T. lankesteri* and *T. namora* by having the forewing lower part light grey, lighter than the upper costal part being ochre brown, speckled with black scales.

Differences with *T. namora*: forewing lower inner marginal area grey vs beige in *T. namora*. Upper costal part of same wing with three beige lines, parallel to termen in *T. milenae* **sp. n.** versus two in *T. namora*. Hindwing pinkish in *T. namora*, ochre brown in *T. milenae* sp. n. Male genitalia with three strong cornuti in basal area of the vesica in an area full of minute teeth, and small additional cornuti in apical area of the vesica for *T. namora* vs two groups of short cornuti with enlarged bases, five at the distal end of the vesica and four spikes on the lateral margin for *T. milenae*.

Differences with *T. lankesteri*: hindwing pale pink in *T. lankesteri*, ochre brown in *T. milenae*. In the *T. lankesteri*, the massive aedeagus has, at the distal end of the shaft, a pointed and robust structure that is strongly sclerotized. The upper half of the base of the vesica is a large area full of minutes teeth. At its distal end, there is a groupe of seven of short, conical

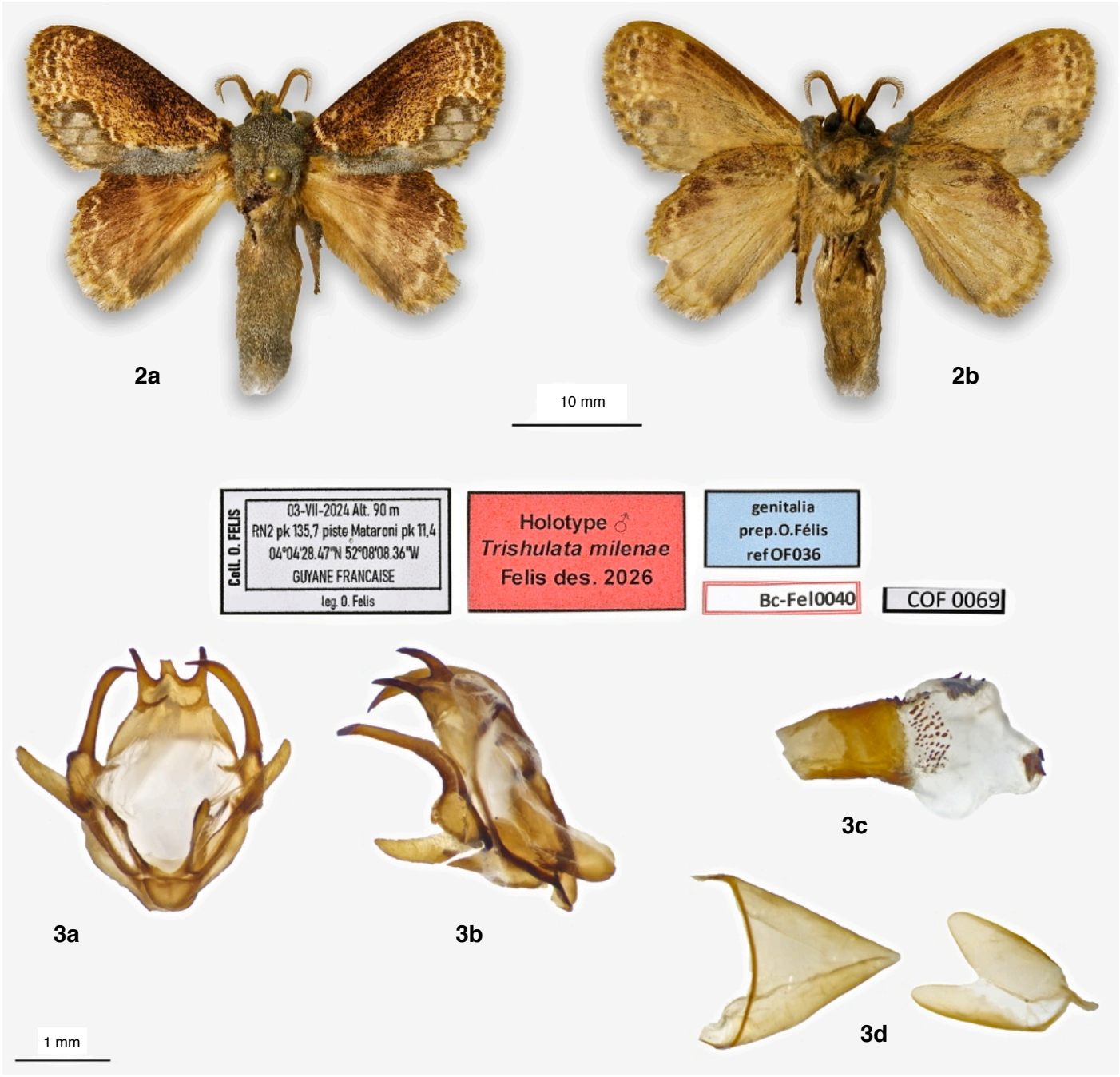

Fig. **2-3**. *Trishulata milenae* **sp**. **n**., ♂, holotype.

2. **a**. Upperside. **b**. Underside. **3**. Genitalia (ref OF036). **a**. Ventral view. **b**. Lateral view. **c**. Aedeagus with everted vesica. **d**. Tergite and Sternite VIII.

cornuti, and on its lateral part, three other sclerotized structures in the form of triangular plates. In *T. milenae*, there are two groups of cornuti with enlarged bases: five at the distal end of vesica and for on the lateral margin.
The DNA barcoding (Tab 1) shows a distance of 7.9% with *T. namora* and 4.6% with *T. lankesteri*.

Description

Male (Fig. 2a, 2b)

Forewing length: 15 mm; Wingspan: 35 mm
Antennae brown beige bipectinate to tip. Labial palpi covered with short yellow hair except the black outer border. Forehead grey except for the areas surrounding the antenna insertion which are yellow. Thorax and dorsal part of the abdomen mouse grey. Lateral and ventral parts of the abdomen brown beige. The forewing is sub-triangular with rounded anterodistal angle and convex termen. The upper half of the forewing is ochre-brown, with darker scales in the costal and discocellular areas. The brown basal area is bordered by an oblique ochre yellow line. The submarginal and marginal lines are punctuated with dark brown spots edged with ochre yellow. The ochre yellow fringe punctuated with dark brown spots extends over the entire termen. The lower part of the dorsal area is pale grey and extends at the tornus with a large rectangular area to the middle of the termen. Forewing underside pale fawn with a ochre brown area in the costal part. Hindwing upperside ochre brown with a fawn to pale yellow anal area. Transverse and diffuse pale-yellow medial line. External postmedial line yellow, sinuous and irregular. The fringe is pale yellow and slightly punctuated. Hindwing underside pale fawn with costal and radial area ochre brown.

Genitalia ♂ (Fig. 3a, 3b, 3c, 4d)

Uncus, simple, short, slightly concave apex. Presence of two socii, inserted at the base of the uncus. Socii twice as long as the uncus. Valva divided into falciform costal part with a bulbous base and a digitiform saccular part bearing bristles at its apical end. Short and massive aedegus. Sac-like spheroid vesica, with an area of tiny sub-basal minute teeth and two groups of short cornuti with enlarged bases (five at the distal end of the vesica in the axis of the aedeagus and four spikes on the lateral margin).

Female. – Unknown.

Firsts instars. – Unknown.

Etymology. – This species is dedicated to Milena, the author's daughter.

Distribution. – French Guiana

***Trishulata tiagoi* sp. n.**

(Fig. 4 & 5)

ZooBank: https://zoobank.org/66F77E84-16F2-41AC-8767-F403B3CD7B49

Holotype, ♂, bearing the following labels: Holotype ♂ *Trishulata tiagoi* Felis des. 2026 – **Guyane Française**, RN2 Km 81.5 Piste Belizon pk 10, 04°19'45.44"N – 52°21'20.25"W, Alt 87 m, 26.IV. 2025, *leg*. O. Felis / D. Herbin – COF 0210 – genitalia prep. O. Felis ref OF067 – *In* MNHN.

Paratypes (2 ♂)

1 ♂, Guyane Française, RN2 km 81.5 Piste Belizon pk 10, 04°19'45.44"N – 52°21'20.25"W, Alt 87 m, 26.IV.2025, *leg*. O. Felis / D. Herbin. - *In* COF.

1 ♂, Guyane Française, RN2 km 135.7 Piste Mataroni pk 11.4, 04°04'28.47"N – 52°08'08.36"W, Alt 90 m, 03.VII.2024, *leg*. O. Felis – COF 0070 – genitalia, prep. O. Felis ref OF037 – Bc-Fel0041 - *In* COF.

Diagnosis. – Habitus similar to *T. vittabunda* and *T. marna*, with the forewing lower inner marginal area, dark brown, and an upper costal half lighter, beige with brown scales speckling. It is the largest species among the dark-facies group with 40 mm wingspan (27 mm for *T. marna*, 36 mm for *T. vittabunda*).
Differences with *T. vittabunda*: a single cornutus on vesica of *T. vittabunda* vs two cornuti in *T. tiagoi*.
Differences with *T. marna*: *T. marna* is much smaller in size (27 mm). Vesica of male aedeagus with no cornutus, but vesica with two lobes, each one with a brush with multiple bristles at apex.
DNA barcoding (Tab 1) shows distances of 3.6% with T. vittabunda and 8.2% with T. marna, leaving no doubts on separate species status.

Description

Male (Fig. 4a, 4b)

Forewing length: 17 mm, Wingspan: 40 mm.
Antennae beige brown bipectinate to tip. Labial palpi dark brown with anterior tips and ventrally median faces yellow. Forehead entirely dark brown. Thorax and abdomen dark brown. The lateral and ventral sides of the abdomen are lighter beige brown. Forewing sub-triangular with rounded antero-distal angle and convex termen. Forewings upperside sand yellow, densely speckled with dark brown, giving an irregular, grainy appearance. Two brown-beige lines bordered with yellow: a thin wavy, submarginal line and a thicker punctuated marginal line. The ochre-yellow fringe is subtly punctuated by darker ochre-brown dots. Underside, large square dark brown area at the tornus extending to the middle of the termen and along the inner area to the base of the wing. Forewing underside sand yellow with a large darker, reddish-brown costal area. The dotted marginal line and the dark brown square area are clearly visible. Hindwing upperside delimited into two areas. The upper area is ochre brown and the lower area is uniformly reddish brown. Two wavy sand-yellow lines in the marginal part of the upper zone. The fringe ochre yellow is slightly dotted. Hindwing underside sand-yellow to reddish brown.

Genitalia ♂ (Fig. 5a, 5b, 5c, 5d, 5e)

Uncus simple, short and truncated at the apex and of the same length as the tegumen. Socii twice as large as the uncus. Costal part of the valve, tubular with a curved and pointed distal end. Saccular part of the valve, short and widened at the base, with bristles on the apical part. The aedeagus is tubular, elongated and straight, shaft sclerotized. Short sac-like vesica. It has an area of tiny minutes teeth on one side and two strongly sclerotized parallel cornuti on the other.

Female. – Unknown.

Firsts instars. – Unknown.

Etymology. – This species is dedicated to Tiago, the author's son.

Distribution. – This species is presently known only from French Guiana

***Trishulata cochabambensis* sp. n.**

(Fig. 6 & 7)

ZooBank: https://zoobank.org/3EC25B9D-7A9E-4AF8-B694-EF83F53F6824

Holotype, ♂, bearing the following labels: Holotype ♂ *Trishulata cochabambensis* Felis des. 2026 - **Bolivia**, 33 km SW Villa Tunari, 17°07.04'S – 65°41.5'W, Alt 1066 m, 30,31XII.2009, *leg*. Viktor & Svletana Sinyaev / Alexei Zamesov– COF 0211 – genitalia prep. O. Felis ref OF068 – *In* MNHN.

Diagnosis. – Large species with a wingspan of 41 mm. Habitus similar to *T. milenae* **sp. n.**, *T. lankesteri* and *T. namora* with the forewing light grey on the marginal lower area, and ochre beige speckled of brown scales on the upper costal half.
Differences with these species: forehead and thorax beige brown, vs grey in the others. Hindwing ochre yellow with a diffuse median line and a sandy yellow scalloped marginal line. The underside of the wings is sandy yellow with darker costal areas. Large vesica which bears on one side a field of nine pointed cornuti and on the other side three strong conical cornuti.

Description

Male (Fig. 6a, 6b).

Forewing length: 18 mm, Wingspan: 41 mm.
Antennae brown beige bipectinate to the tip. Labial palpi brown beige. Forehead and thorax beige brown, lighter on the ventral side. Abdomen light brown. The upper part of the ochre-yellow forewing is densely speckled

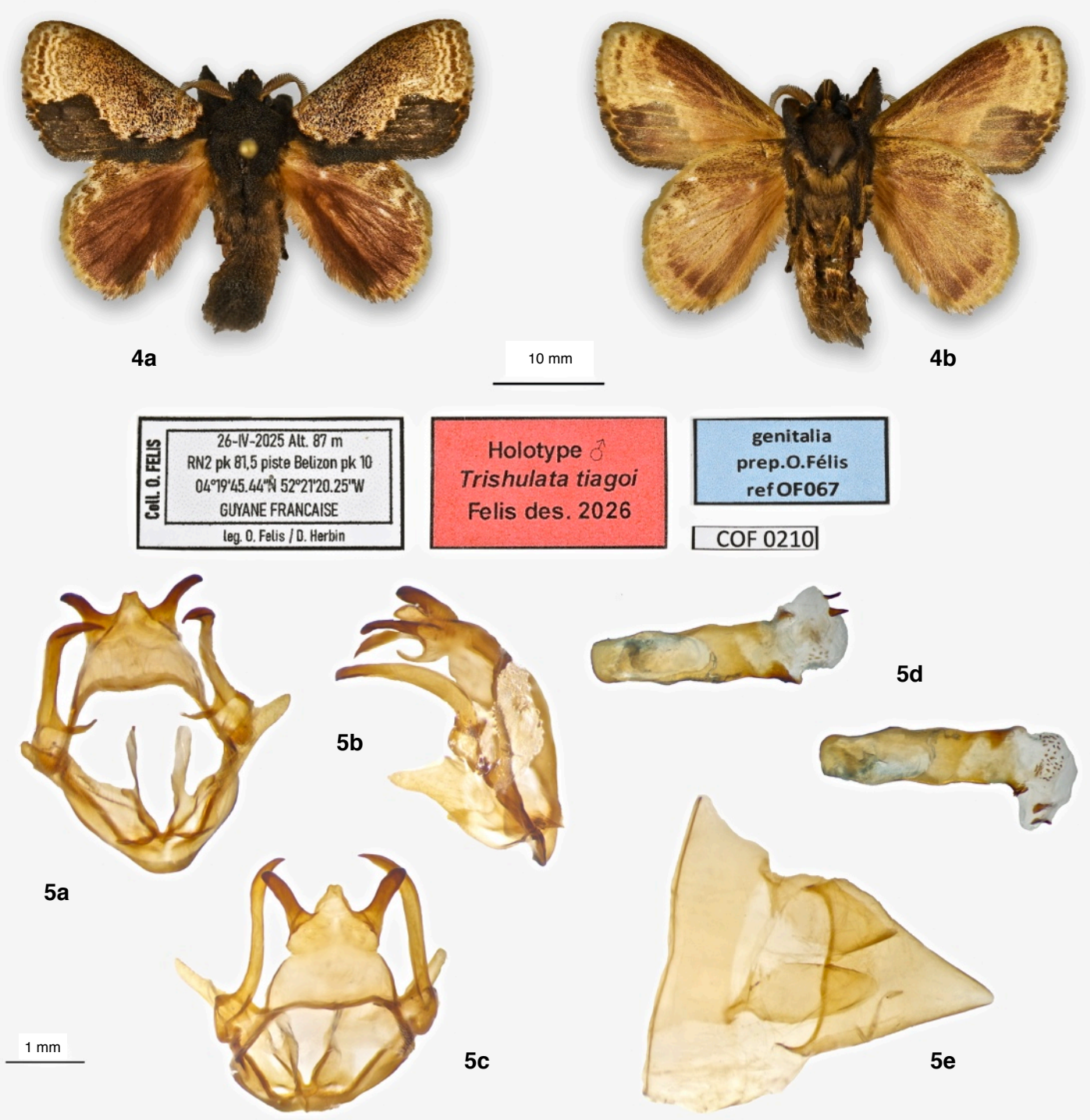

Fig. **4-5**. *Trishulata tiagoi* **sp**. **n**., ♂, holotype.

4. **a**. Upperside. **b**. Underside. **5**. Genitalia (ref OF067). **a**. Ventral view. **b**. Lateral view. **c**. Dorsal view. **d**. Aedeagus. **e**. Tergite and Sternite VIII.

with darker scales, giving it a hazel-brown appearance. A slightly wavy, brown-beige submarginal line and a marginal line punctuated with large hazel-brown spots are bordered by ochre-yellow. The ochre yellow fringe is punctuated along the entire length of the termen. Lower part of the forewing with a large beige square area in the tornus area extending to the middle of the termen and along the inner area. Underside predominantly ochre yellow to sand yellow with slightly darker, ochre brown costal area. Hindwing upperside brown-beige with a smaller costal area of hazel-brown. Diffuse midline and a scalloped marginal line, both sand yellow. Hindwing underside largely sand yellow in appearance with a costal area darker, ochre brown which reveals the two dorsal lines.

Genitalia ♂ (Fig. 7a, 7b, 7c, 7d, 7e)

Uncus simple, short, truncated at the apex. Two socii twice as large as the uncus. Costal part of the valve tubular, falciform, ending in a sclerotized tip. The saccular portion is digitiform, slightly curved at the apex, broadened at the base and bears setae on the apical part. The aedeagus is tubular and short. It continues into a large vesica which bears on one side nine slender cornuti and on the other three strong conical cornuti.

Female. – Unknown.

Firsts instars. – Unknown.

Etymology. – The species epithet cochabambensis refers to the department of Cochabamba, Bolivia, where the holotype was collected.

Distribution. – Only known from the type locality in Bolivia

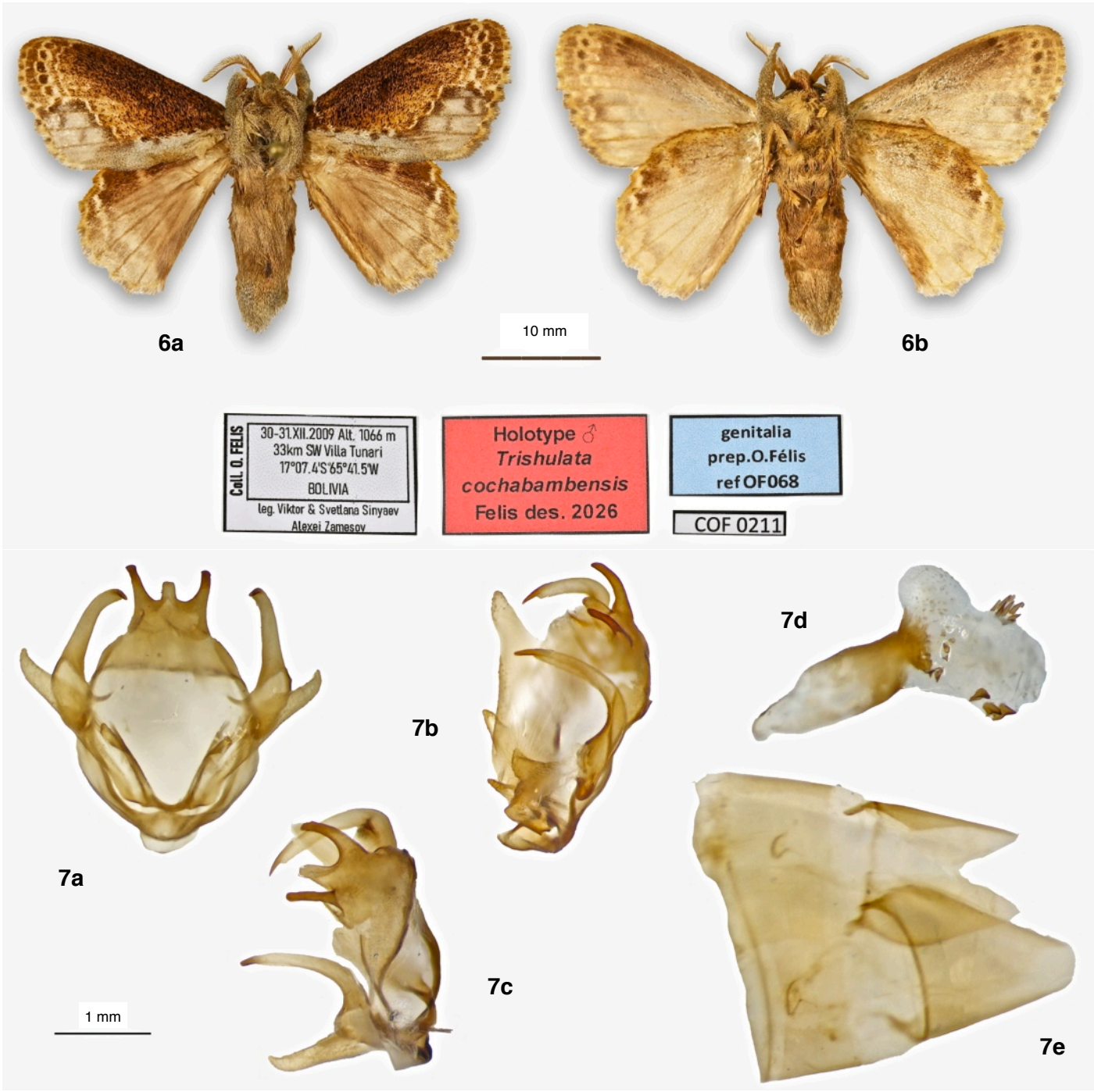

Fig. 6-7. *Trishulata cochabambensis* **sp. n.**, ♂, holotype.

6. **a**. Upperside. **b**. Underside. **7**. Genitalia (ref OF068). **a**. Ventral view. **b-c**. Lateral view. **d**. Aedeagus. **e**. Tergite and Sternite VIII.

***Trishulata kozlovi* sp. n.**

(Fig. 8 & 9)

ZooBank: https://zoobank.org/C07934BE-C4A5-45FF-B3A0-50C43C0BBF3A

Holotype, ♂, bearing the following labels: Holotype ♂ *Trishulata kozlovi* Felis des. 2026 - **Colombia**, Boyacá, Otanche-Puerto Boyacá, 5°44'10''N – 74°13'04''W, Alt 685 m, 10-16.II.2016, *leg*. Sinyaev / Zaritzki– COF 0215 – genitalia prep. O. Felis ref OF072 – *In* MNHN.

Diagnosis. – Habitus similar to *T. marna*, *T. vittabunda*, and *T. tiagoi* **n. sp**. with the lower part of the forewing dark brown along the inner margin. The male genitalia are diagnostic: the vesica has two parallel strong sclerotized cornuti, a finger like diverticulum, and a multiplicity of minute teeth. The aedeagus shaft apex has small sclerotized teeth on each of two opposite lateral sides: three on one side, four on the opposite. The nearest species is *T.* vittabunda from Panama, showing a single cornutus on the vesica.

Description

Male (Fig. 8a, 8b)

Forewing length: 17 mm; wingspan: 35 mm.

Antennae grey beige, bipectinate to the tip. Thorax brown dorsally, beige brown ventrally, abdomen pale brown dorsally, brown beige ventrally with greyish scales at anal extremity.

Forewing subtriangular, with rounded termen, upperside pale brown along inner margin, enlarged at mid wing up to tornus and termen. Upper costal half beige with a speckling of brown scales. Four wavy beige lines parallel to termen in beige part of the marginal area, bordered proximally of darker beige brown. Underside pinkish beige, with a darker square area near tornus. Hindwing uniformly pinkish

beige, with a slightly paler marginal area, and an interrupted beige brown line parallel to termen near the fringe. Underside uniformly pale beige with two weakly defined lines parallel to termen in marginal area.

Genitalia ♂ (Fig. 9a, 9b, 9c, 9d, 9e)

Uncus rather short surrounded by a pair of long and strongly sclerotized socii. Valva parts as for the above species. The aedeagus is wide and as long as the overall genitalia structure, its sclerotized shaft is conical, enlarged at its apex with small sclerotized spines on two opposite sides: three on one side, four on the opposite side. The vesica almost spherical with a digitiform diverticulum at 90°, a large area with minute teeth, and a pair of strongly sclerotized parallel cornuti, linked together at their base, on distal part.

Female. – Unknown.

Firsts instars. – Unknown.

Etymology. – Dedicated to Anton Kozlov, russian entomologist who kindly provided this material for study.

Distribution. – Only known from the type locality in Colombia.

Discussion

Examination of the photographs of the imagos (Fig. 12) and of their genitalia (Fig. 13) confirms the belonging to *Trishulata* **n. gen**. of the following species:

- *Claphe vittabunda* Dyar, 1914 (currently *Euglyphis vittabunda* (Dyar, 1914)): Primary syntype male (USNM).
- *Claphe lankesteri* Schaus, 1910 (currently *Euglyphis lankesteri* (Schaus, 1910)): Primary syntype male (USNM).

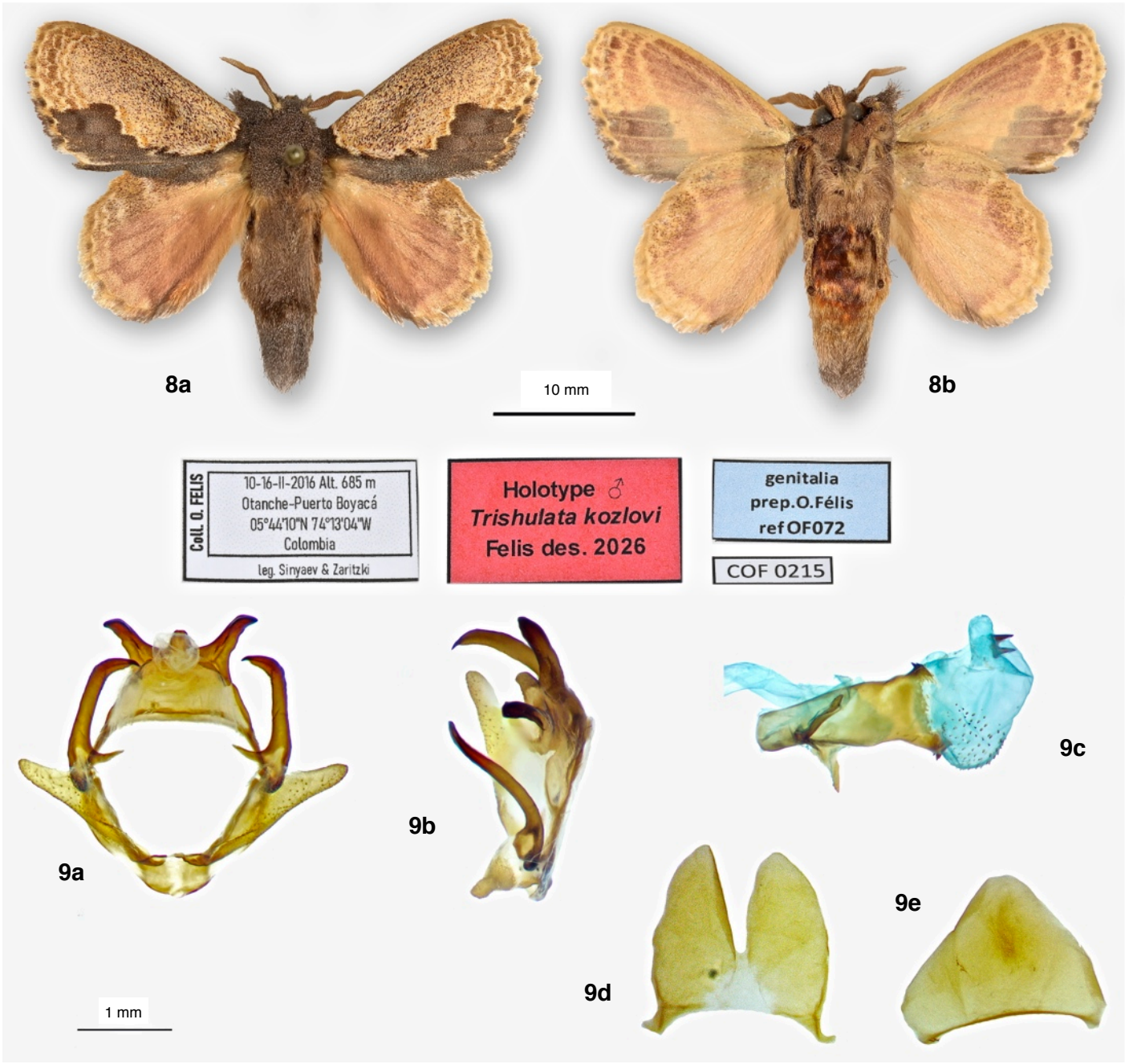

Fig. 8-9. *Trishulata kozlovi* **sp. n.**, ♂, holotype.

8. **a**. Upperside. **b**. Underside. **9**. Genitalia (ref OF72). **a**. Ventral view. **b**. Lateral view. **c**. Aedeagus. **d-e**. Tergite and Sternite VIII.

- *Hydrias marna* Schaus, 1896 (currently *Euglyphis marna* (Schaus, 1896)): Primary syntype male (USNM).
- *Claphe namora* Schaus, 1905 (currently *Euglyphis namora* (Schaus, 1905)): Primary syntype male (USNM).

This is also confirmed by the clearly separate branch in the overall Lasiocampidae tree built from the COI sequences extracted from BOLD, rooted to the generotype of the genus *Euglyphis*: *Phalaena claudia* Stoll, [1782]. A distance of ca. 19% between the two genera is observed (Fig. 11).
The new genus therefore includes now eight species:

Trishulata cochabambensis **sp**. **n**.,
Trishulata kozlovi **sp**. **n**.,
Trishulata lankesteri **comb**. **n**.,
Trishulata marna **comb**. **n**.,
Trishulata milenae **sp**. **n**.,
Trishulata namora **comb**. **n**.,
Trishulata tiagoi **sp**. **n**.,
Trishulata vittabunda **comb**. **n**.

The eight species included in *Trishulata* **gen**. **n**. exhibit very similar habitus, in two subgroups: one subgroup with the forewing lower part near lower margin greyish and paler than the upper costal half which is much darker: *T. namora*, *T. milenae* **sp**. **n**., *T. lankesteri* and *T. cochabambensis* **sp**. **n**. The second subgroup with the reverse configuration: the lower part of forewing chocolate brown, darker than the upper costal half: *T. marna*, *T. tiagoi* **sp**. **n**., *T. vittabunda* and *T. kozlovi* **sp**. **n**.

The examination of their male genitalia shows very similar configuration within the genus: uncus, socii, valvae, but some significant differences, particularly on the aedeagus, and its vesica with different configurations of cornuti. The configuration of the uncus and the pair of socii, giving this diagnostic trident shape, and the absence of gnathos, is unique in the subfamily. The male genitalia of *Euglyphis claudia* (generotype species) have a single relatively long and spatulate uncus, the absence of socii, a narrow spatulate gnathos as long as uncus, i.e. a strikingly different configuration compared to *Trishulata* **gen**. **n**.
The results of DNA analyses done in the frame of BOLD project, as reflected in Tab 1, enabled to evaluate the distance of this group with the generotype of genus *Euglyphis* (*Euglyphis claudia*): a huge distance of 17% miminum is shown. This being coupled with the findings on habitus and genitalia fully supports the erection of a new genus. The distances between species are also quite large, with the minimum distance found of 3.6%, and the maximum greater than 10,8%.

Acknowledgments

I would like to thank in particular Michel Laguerre and Daniel Herbin with whom I have had the privilege of sharing many entomological collecting nights and who have allowed me over time to progress in the field of entomology.
I am grateful to Rodolphe Rougerie (MNHN) for his help in using BoldSystem and for giving me access to the data of the DS-

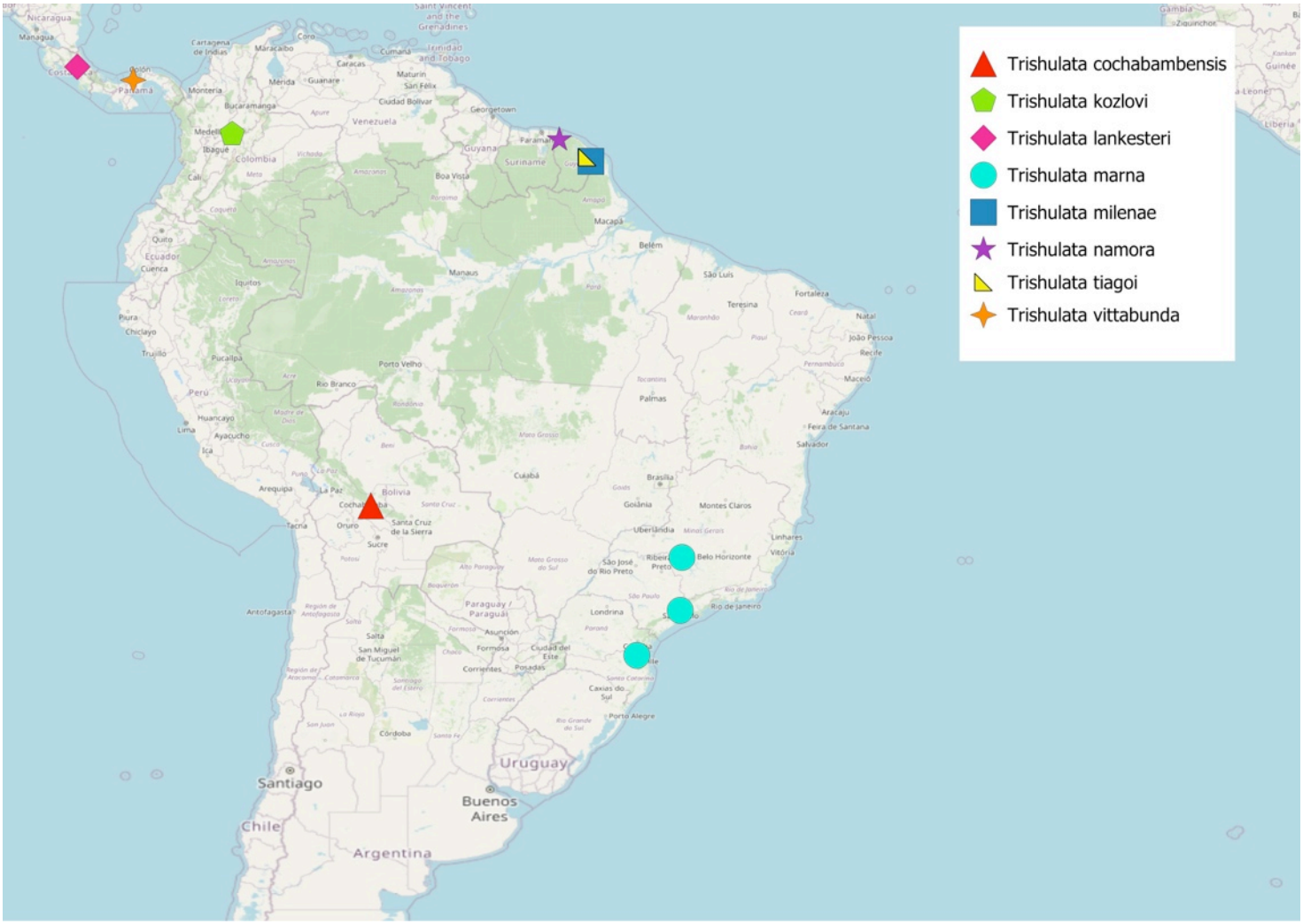

Fig. **10**. Distribution map of the genus *Trishulata* in Central and South America.

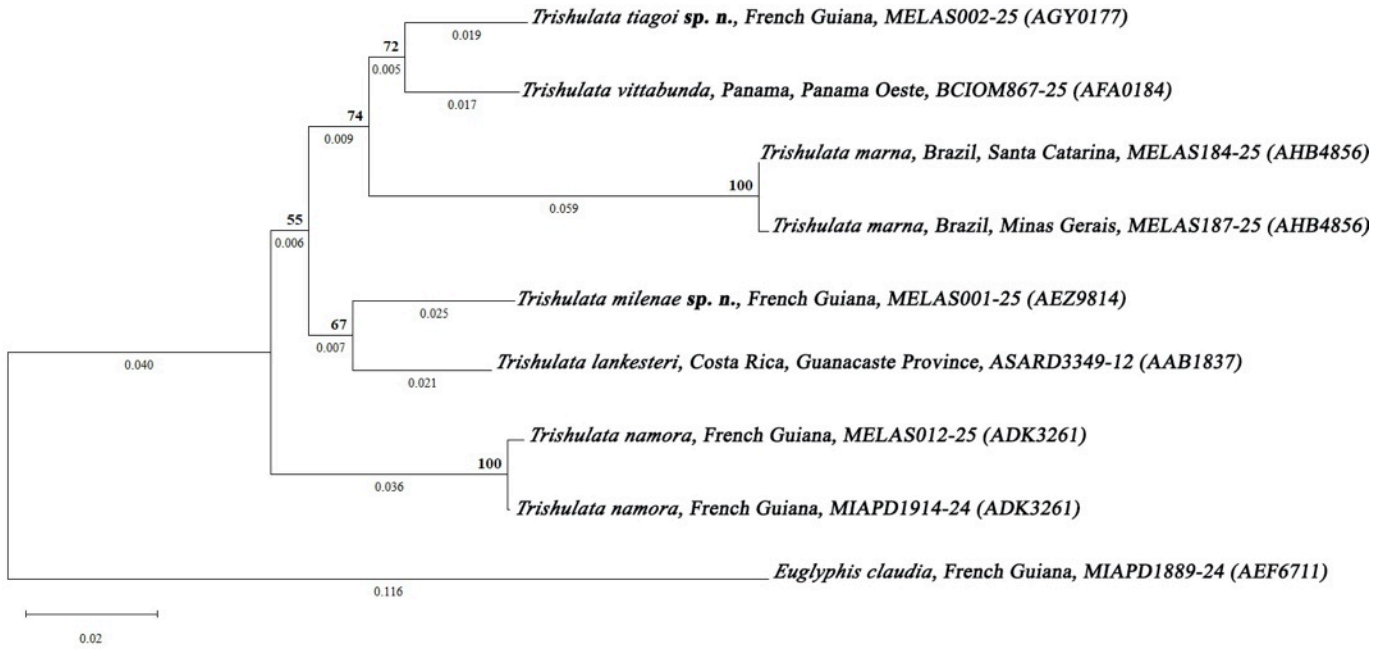

Fig. **11**. Phylogenetic tree of 6 *Trishulata* species and *Euglyphis claudia*, with neighbour-joining method. The percentage of replicate trees in which the associated taxa clustered together in the bootstrap test (1000 replicates) are shown next to the branches. The branches lengths correspond to the evolutionary distances.

Tab. **1**. Pairwise genetic distance matrix (%) based on COI gene fragments.

		1	2	3	4	5	6	7
1	*Euglyphis claudia*, French Guiana, MIAPD1889-24 (AEF6711)							
2	*Trishulata milenae*, French Guiana, MELAS001-25 (AEZ9814)	0,170						
3	*T. lankesteri*, Costa Rica, Guanacaste Province, ASARD3349-12 (AAB1837)	0,176	0,046					
4	*T. vittabunda*, Panama, Panama Oeste, BCIOM867-25 (AFA0184)	0,174	0,068	0,061				
5	*T. tiagoi*, French Guiana, MELAS002-25 (AGY0177)	0,176	0,066	0,059	0,036			
6	*T. marna*, Brazil, Minas Gerais, MELAS187-25 (AHB4856)	0,210	0,092	0,096	0,081	0,082		
7	*T. namora*, French Guiana, MIAPD1914-24 (ADK3261)	0,174	0,079	0,064	0,066	0,072	0,108	

MDLGF project (Megalopygidae, Dalceridae and Lasiocampidae of French Guiana).
I am grateful to Daniel Hunt Janzen and his wife Winifred Hallwachs for their work in Costa Rica which enabled the sequencing of, among other things, the Lasiocampidae of that country. I thank them for their permission to use the DNA sequences of specimens in Costa Rica from the BOLD data base and the image of *T. lankesteri* to illustrate this work.
I thank Jerry and Linda Harrison for sending me a photo of *T. vittabunda* from Panama.
I thank Anton Kozlov for providing some materials from Colombia for study.
I thank Nicolas Hausherr for a female *Euglyphis claudia* for study.
The team of Canadian Centre for DNA Barcoding, Guelph University, Ontario, Canada, provided support for processing and sequencing samples.
I thank the ONF, in the person of Marc-Antoine Shu-Gestin, for granting me permission to travel on the Mataroni forest track.
I thank two ananymous reviewers who contributed to improving the text with their constructive comments.

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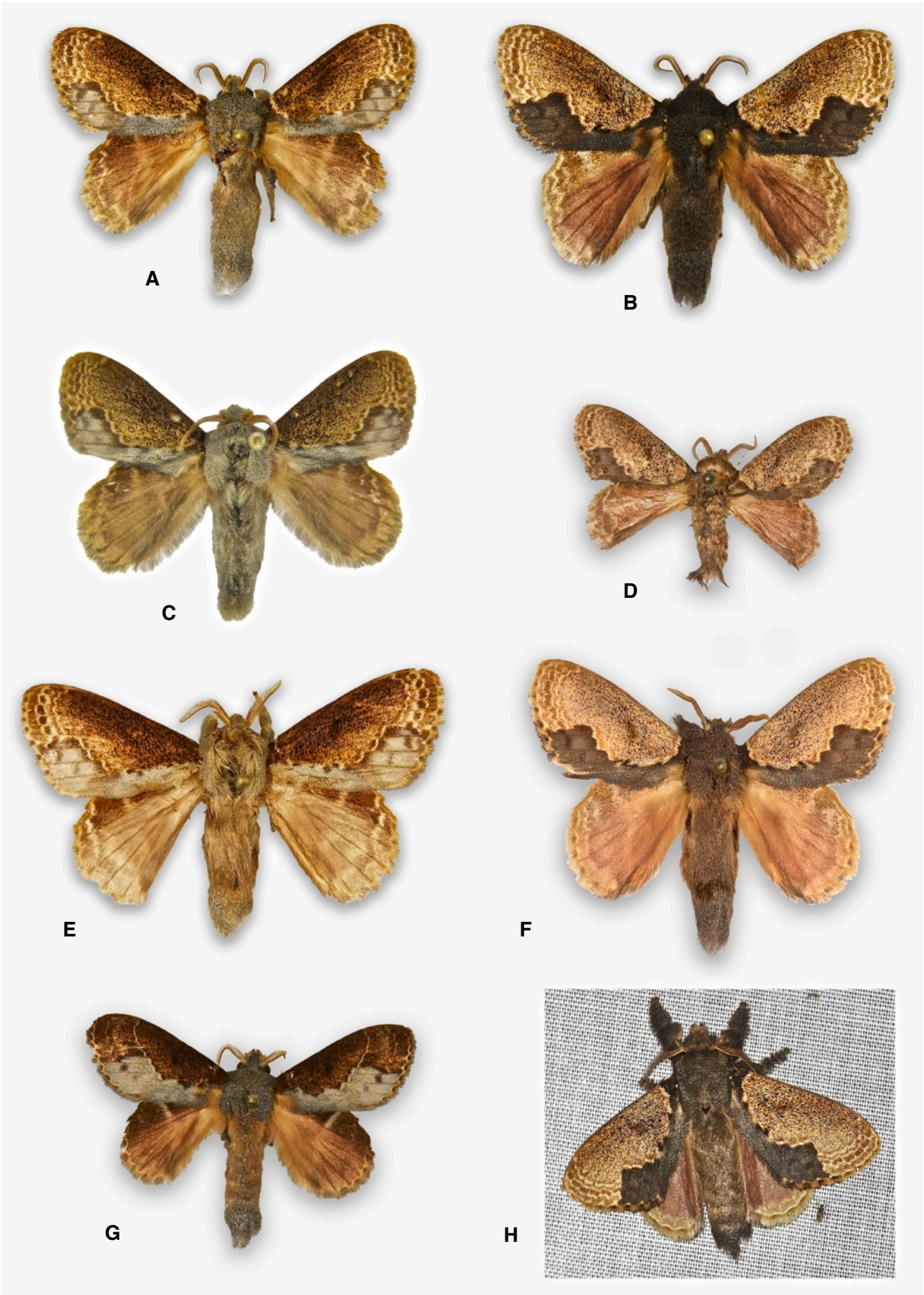

Fig. **12**. **A**. *T. milenae*, holotype, *In* MNHN. **B**. *T. tiagoi*, paratype, *In* COF. **C**. *T. lankesteri* [pic 26.03.2003, Costa Rica, Guanacaste Province; foto: Jose Monteiro] with permission from Daniel H. Janzen. **D**. *T. marna*, Brazil, Minas Gerais *In* COF. **E**. *T. cochabambensis*, holotype *In* MNHN. **F**. *T. kozlovi*, holotype *In* MNHN. **G**. *T. namora*, In COF. **H**. *T. vittabunda* [pic 17.1.2020, Panama Province, Panama ; foto: Linda Harrison].

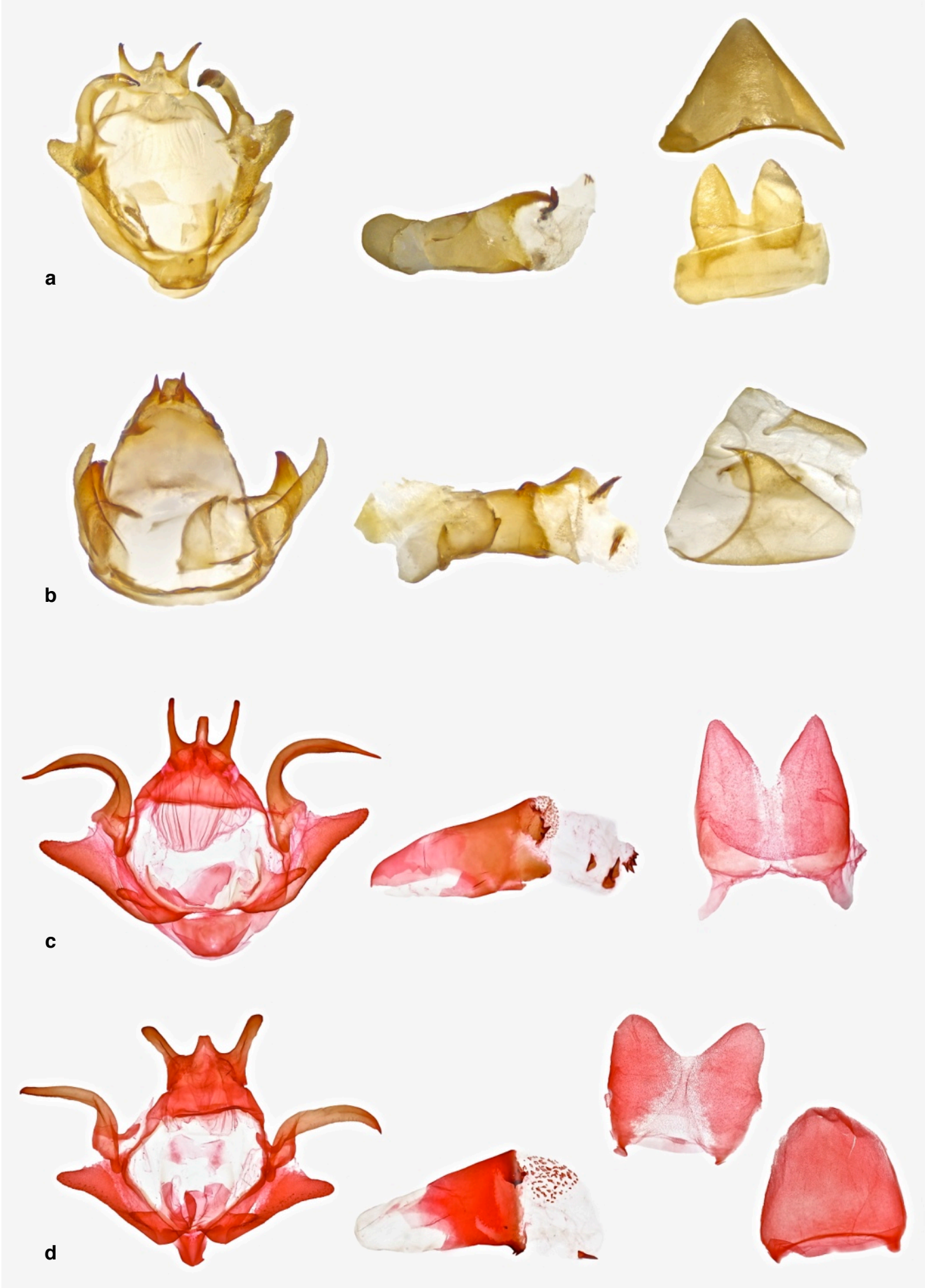

Fig. **13**. Genitalia ♂, ventral view; Aedeagus with everted vesica; Tergite and Sternite VIII.

a. *Trishulata namora*, *in* COF. **b**. *Trishulata marna*, *in* COF. **c**. *Trishulata lankesteri*, holotype courtesy USNM. **d**. *Trishulata vittabunda*, holotype courtesy USNM.

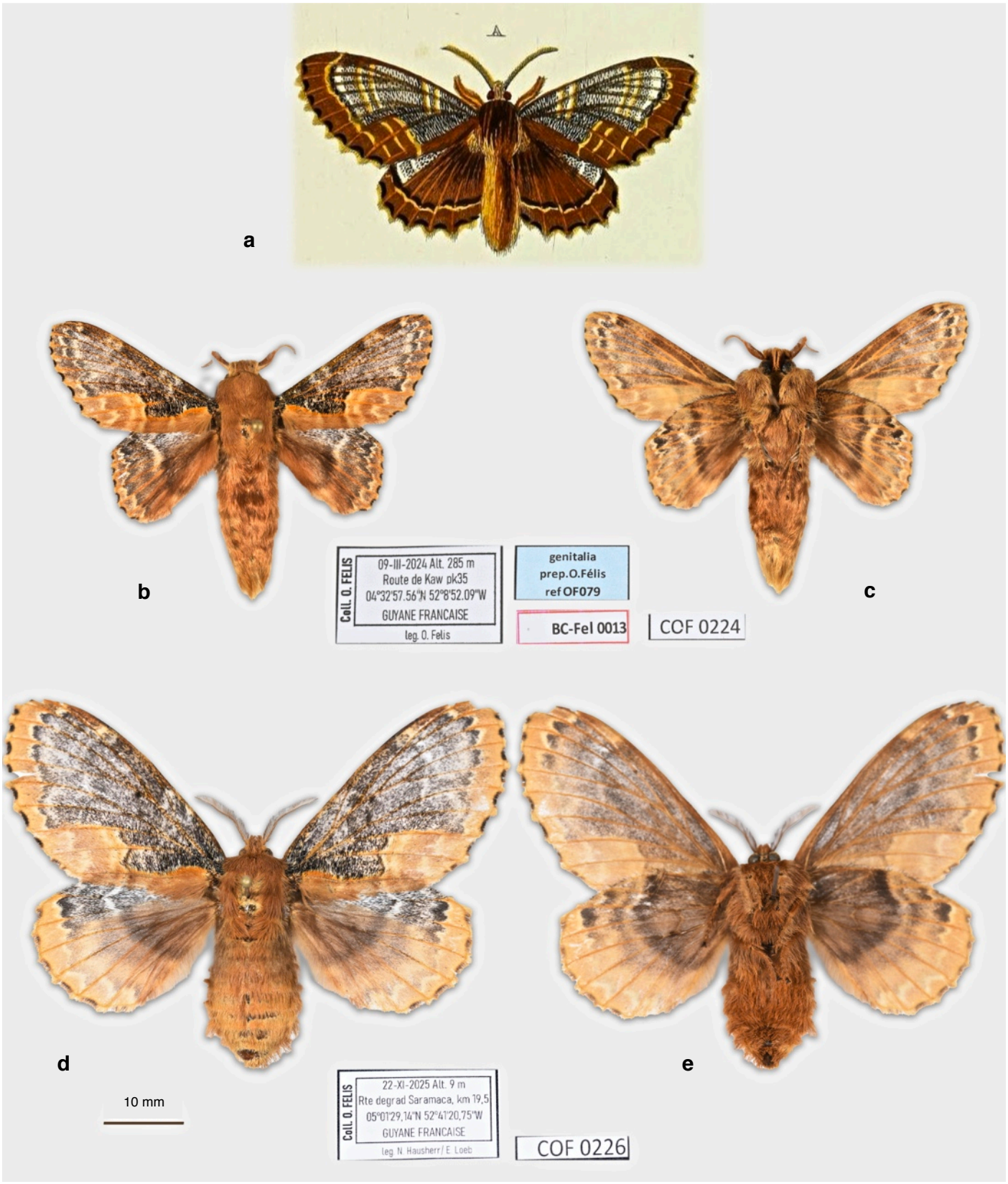

Fig. **14**. *Euglyphis claudia*.

a. Illustration of *Phalaena claudia* by Caspar Stoll (1782) showing the characteristic habitus of the species. **b**-**c**. Male specimen, dorsal and ventral view, collected in French Guiana, *in* COF. **d**-**e**. Female specimen, dorsal and ventral view, collected in French Guiana by Nicolas Hausherr, *in* COF.

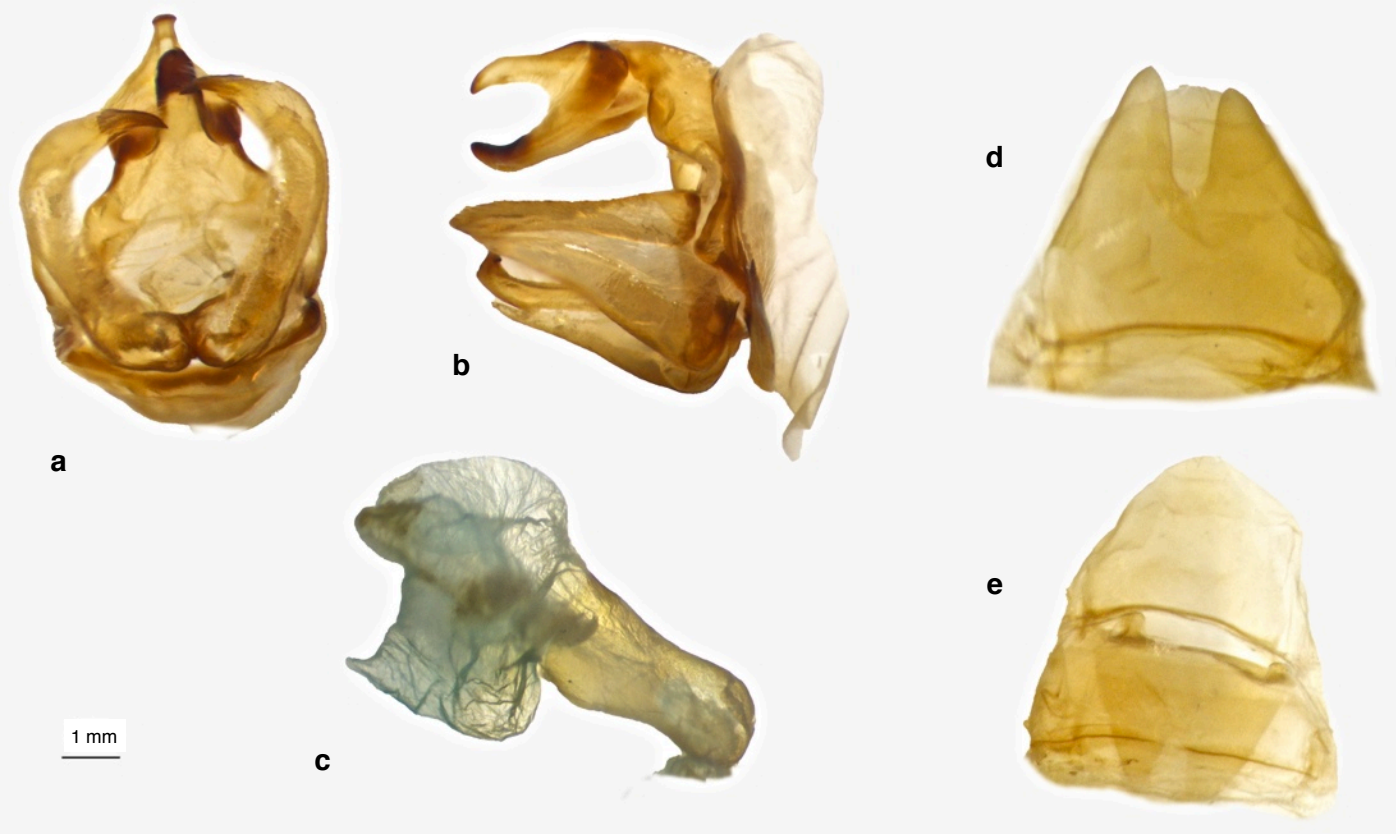

Fig. **15**. *Euglyphis claudia* ♂, COF 0224, genitalia (ref OF079).
a. Ventral view. **b**. Lateral view. **c**. Aedeagus. **d-e**, Sternite and Tergite VIII.

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Résumé

Félis O., 2026. – Description d'un nouveau genre et de quatre nouvelles espèces de Lasiocampidae néotropicaux avec de nouvelles combinaisons (Lepidoptera : Lasiocampidae, Poecilocampinae, Macromphaliini). *Faunitaxys*, 14(36): 1 – 13.

L'étude des habitus et des genitalia, incluant également le support du barcoding ADN, d'un groupe d'espèces actuellement classées dans le genre *Euglyphis* Hübner, [1820], conduit à créer le nouveau genre *Trishulata* **n**. **gen**., avec *Trishulata milenae* **n**. **sp**. comme espèce type. Trois autres espèces, *T. cochabambensis* **n**. **sp**., *T. kozlovi* **n**. **sp**. et *T. tiagoi* **n**. **sp**., sont décrites et les espèces suivantes, précédemment classées dans le genre *Euglyphis*, sont transférées dans le nouveau genre : *Trishulata lankesteri* Schaus, 1910 **n**. **comb**., *Trishulata marna* Schaus, 1896 **n**. **comb**., *Trishulata namora* Schaus, 1905 **n**. **comb**. et *Trishulata vittabunda* Dyar, 1914 **n**. **comb**.

Mots-clés. – Lepidoptera, Lasiocampidae, *Euglyphis*, *Trishulata*, taxonomie, description, nouvelle espèce, Bolivie, Colombie, Guyane Française.

Faunitaxys

Volume 14, Numéro 36, Mai 2026

SOMMAIRE

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Illustration de la couverture :

Early morning on the Mataroni logging road, French Guiana.

Crédits :

O. **Felis**: Fig: 1-9, 12A, 12B, 12D, 12E, 12F, 12G, 13a, 13b, 14-15 & cover.
O. **Felis** (Courtesy **Daniel H**. **Janzen**): Fig 12C.
O. **Felis** (**Courtesy Jerry** & **Linda Harrison**): Fig 12H.
O. **Felis** (Courtesy **USNM**): Fig: 13c, 13d.

Publié par l'Association Française de Cartographie de la Faune et de la Flore (AFCFF)